

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/052590 A1

(51) International Patent Classification⁷: G01N 33/68, C12Q 1/68, C12N 9/90, C07K 14/47, C07H 21/02

[KR/KR]; 307-902 Sunkyung 3-cha Apt., Ingye-dong, Paldal-gu, Suwon-si, Gyeonggi-do 442-762 (KR). LEE, Yoon-Suk [KR/KR]; 209-302 Daewoo 2-cha Apt., Chiljeon-dong, Chuncheon-si, Gangwon-do 200-220 (KR). CHANG, Soo-Ik [KR/KR]; 106-706 Kunyoung Apt., 2099, Yongam-dong, Sangdang-gu, Cheongju-si, Chungcheongbuk-do 360-811 (KR).

(21) International Application Number:
PCT/KR2004/003086

(22) International Filing Date:
26 November 2004 (26.11.2004)

(74) Agents: LEE, Sang-Yong et al.; 4F, Byukcheon Bldg., 1597-5, Seocho-dong, Seocho-gu, Seoul 137-876 (KR).

(25) Filing Language: Korean

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

(30) Priority Data:
10-2003-0086014
29 November 2003 (29.11.2003) KR

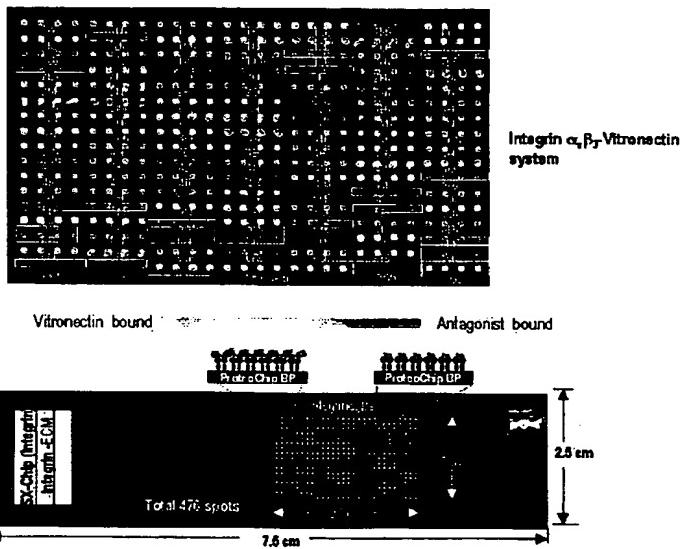
(71) Applicant (for all designated States except US): PROTEOGEN, INC. [KR/KR]; 1516, Windstone Officetel, 275-2, Yangjae 2-dong, Seocho-gu, Seoul 137-722 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HAN, Moon-Hi [KR/KR]; 8-1003 Shindong-a Apt., 1, Yongicon-dong, Dong-gu, Daejeon 300-823 (KR). KANG, In-Cheol

[Continued on next page]

(54) Title: HIGH-THROUGHPUT SCREENING METHOD FOR INTEGRIN ANTAGONIST AND NEW PEPTIDE SCREENED THEREFROM



(57) Abstract: The present invention relates to the screening method of antagonistic material of integrin using the protein chip and useful peptides screened thereby. The protein chip used in the present invention is unique substrate coated with new material, calixarene derivative, which can keep uniform and high activities of proteins. Integrin receptor protein is arrayed high densely on the chip, and materials (protein, peptide, small molecules and so on) specifically inhibiting the binding of ligand can be screened therewith. The integrins used in the present invention are integrin αv β3 and integrin α1, β1, γ3, and new antagonistic peptides screened from peptide library have high binding affinity.

WO 2005/052590 A1

BEST AVAILABLE COPY



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*